

METHOD AND APPARATUS FOR ULTRASONICALLY
STOMPING SLIDER END STOPS ON ZIPPER

ABSTRACT OF THE DISCLOSURE

An ultrasonic welding assembly comprising a horn, an anvil and an anvil cover. The horn comprises a generally T-shaped flattening surface and a rail projecting forward of the flattening surface. The rail is shaped to serve as a dam for flowing thermoplastic zipper material during stomping of slider end stops. The horn further comprises a plurality of vertical energy directors designed to direct ultrasonic energy into the mass of zipper material and deflect flowing zipper material toward the dam. The horn further comprises first and second recesses located on opposite sides of a stem of the T-shaped flattening surface. The anvil cover overlies opposing portions of the anvil and comprises a T-shaped cutout. The T-shaped flattening surface of the horn fits in the T-shaped cutout of the anvil cover. The resulting zipper has slider end stops located at opposing ends. Each end stop comprises flattened zipper material having a plurality of spaced indentations, the indentations being formed by the energy directors during stomping. The zipper can be pre-heated prior to ultrasonic stomping. A flange of the zipper can be cooled by fluid during ultrasonic stomping of the zipper parts.